



TECH CENTER 1600/2900

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RECEIVED

SEQUENCE LISTING

B1
<110> Donoho, Gregory
Turner, C. Alexander Jr.
Nehls, Michael
Friedrich, Glenn
Zambrowicz, Brian
Sands, Arthur T.

<120> Novel Human Proteins and Polynucleotides
Encoding the Same

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<150> US 60/160,285

<151> 1999-10-19

<150> US 60/183,583

<151> 2000-02-18

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<212> DNA

<213> homo sapiens

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 35 40 45
 Phe Thr Ser Ser Ser Asp Gln Tyr Gly Pro Tyr Cys Gly Ser Met Thr
 50 55 60
 Val Pro Lys Glu Leu Leu Asn Thr Ser Glu Val Thr Val Arg Phe
 65 70 75 80
 Glu Ser Gly Ser His Ile Ser Gly Arg Gly Phe Leu Leu Thr Tyr Ala
 85 90 95
 Ser Ser Asp His Pro Asp Leu Ile Thr Cys Leu Glu Arg Ala Ser His
 100 105 110
 Tyr Leu Lys Thr Glu Tyr Ser Lys Phe Cys Pro Ala Gly Cys Arg Asp
 115 120 125
 Val Ala Gly Asp Ile Ser Gly Asn Met Val Asp Gly Tyr Arg Asp Thr
 130 135 140
 Ser Leu Leu Cys Lys Ala Ala Ile His Ala Gly Ile Ile Ala Asp Glu
 145 150 155 160
 Leu Gly Gly Gln Ile Ser Val Leu Gln Arg Lys Gly Ile Ser Arg Tyr
 165 170 175
 Glu Gly Ile Leu Ala Asn Gly Val Leu Ser Arg Asp Gly Ser Leu Ser
 180 185 190
 Asp Lys Arg Phe Leu Phe Thr Ser Asn Gly Cys Ser Arg Ser Leu Ser
 195 200 205
 Phe Glu Pro Asp Gly Gln Ile Arg Ala Ser Ser Ser Trp Gln Ser Val
 210 215 220
 Asn Glu Ser Gly Asp Gln Val His Trp Ser Pro Gly Gln Ala Arg Leu
 225 230 235 240
 Gln Asp Gln Gly Pro Ser Trp Ala Ser Gly Asp Ser Ser Asn Asn His
 245 250 255
 Lys Pro Arg Glu Trp Leu Glu Ile Asp Leu Gly Glu Lys Lys Lys Ile
 260 265 270
 Thr Gly Ile Arg Thr Thr Gly Ser Thr Gln Ser Asn Phe Asn Phe Tyr
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 Thr Tyr Lys Gly Ile Val Asn Asn Glu Glu Lys Val Phe Gln Gly Asn
 305 310 315 320
 Ser Asn Phe Arg Asp Pro Val Gln Asn Asn Phe Ile Pro Pro Ile Val
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 Ala Arg Tyr Val Arg Val Val Pro Gln Thr Trp His Gln Arg Ile Ala
 340 345 350
 Leu Lys Val Glu Leu Ile Gly Cys Gln Ile Thr Gln Gly Asn Asp Ser
 355 360 365
 Leu Val Trp Arg Lys Thr Ser Gln Ser Thr Ser Val Ser Thr Lys Lys
 370 375 380
 Glu Asp Glu Thr Ile Thr Arg Pro Ile Pro Ser Glu Glu Thr Ser Thr
 385 390 395 400

Gly Ile Asn Ile Thr Thr Val Ala Ile Pro Leu Val Leu Leu Val Val
 405 410 415
 Leu Val Phe Ala Gly Met Gly Ile Phe Ala Ala Phe Arg Lys Lys Lys
 420 425 430
 Lys Lys Gly Ser Pro Tyr Gly Ser Ala Glu Ala Gln Lys Thr Asp Cys
 435 440 445
 Trp Lys Gln Ile Lys Tyr Pro Phe Ala Arg His Gln Ser Ala Glu Phe
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 tgcccagctg gttgtagaga cgtagcagga gacatttctg ggaatatggt agatggatat 720
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 ctggagatcg atttggggga gaaaaagaaa ataacaggaa ttaggaccac aggatctaca 1140
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 50 55 60
 Gly Leu Leu Ala Leu Leu Leu Ala Val Ser Ala Pro Leu Arg Leu Gln
 65 70 75 80
 Ala Glu Glu Leu Gly Asp Gly Cys Gly His Leu Val Thr Tyr Gln Asp
 85 90 95
 Ser Gly Thr Met Thr Ser Lys Asn Tyr Pro Gly Thr Tyr Pro Asn His
 100 105 110
 Thr Val Cys Glu Lys Thr Ile Thr Val Pro Lys Gly Lys Arg Leu Ile
 115 120 125
 Leu Arg Leu Gly Asp Leu Asp Ile Glu Ser Gln Thr Cys Ala Ser Asp
 130 135 140
 Tyr Leu Leu Phe Thr Ser Ser Ser Asp Gln Tyr Gly Pro Tyr Cys Gly
 145 150 155 160
 Ser Met Thr Val Pro Lys Glu Leu Leu Leu Asn Thr Ser Glu Val Thr
 165 170 175
 Val Arg Phe Glu Ser Gly Ser His Ile Ser Gly Arg Gly Phe Leu Leu
 180 185 190
 Thr Tyr Ala Ser Ser Asp His Pro Asp Leu Ile Thr Cys Leu Glu Arg
 195 200 205
 Ala Ser His Tyr Leu Lys Thr Glu Tyr Ser Lys Phe Cys Pro Ala Gly
 210 215 220
 Cys Arg Asp Val Ala Gly Asp Ile Ser Gly Asn Met Val Asp Gly Tyr
 225 230 235 240
 Arg Asp Thr Ser Leu Leu Cys Lys Ala Ala Ile His Ala Gly Ile Ile
 245 250 255
 Ala Asp Glu Leu Gly Gly Gln Ile Ser Val Leu Gln Arg Lys Gly Ile
 260 265 270
 Ser Arg Tyr Glu Gly Ile Leu Ala Asn Gly Val Leu Ser Arg Asp Gly
 275 280 285
 Ser Leu Ser Asp Lys Arg Phe Leu Phe Thr Ser Asn Gly Cys Ser Arg
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 Ser Leu Ser Phe Glu Pro Asp Gly Gln Ile Arg Ala Ser Ser Ser Trp
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 Gln Ser Val Asn Glu Ser Gly Asp Gln Val His Trp Ser Pro Gly Gln
 325 330 335
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 340 345 350
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 370 375 380
 Asn Phe Tyr Val Lys Ser Phe Val Met Asn Phe Lys Asn Asn Asn Ser
 385 390 395 400
 Lys Trp Lys Thr Tyr Lys Gly Ile Val Asn Asn Glu Glu Lys Val Phe
 405 410 415
 Gln Gly Asn Ser Asn Phe Arg Asp Pro Val Gln Asn Asn Phe Ile Pro
 420 425 430
 Pro Ile Val Ala Arg Tyr Val Arg Val Val Pro Gln Thr Trp His Gln
 435 440 445

Arg Ile Ala Leu Lys Val Glu Leu Ile Gly Cys Gln Ile Thr Gln Gly
 450 455 460
 Asn Asp Ser Leu Val Trp Arg Lys Thr Ser Gln Ser Thr Ser Val Ser
 465 470 475 480
 Thr Lys Lys Glu Asp Glu Thr Ile Thr Arg Pro Ile Pro Ser Glu Glu
 485 490 495
 Thr Ser Thr Gly Ile Asn Ile Thr Thr Val Ala Ile Pro Leu Val Leu
 500 505 510
 Leu Val Val Leu Val Phe Ala Gly Met Gly Ile Phe Ala Ala Phe Arg
 515 520 525
 Lys Lys Lys Lys Lys Gly Ser Pro Tyr Gly Ser Ala Glu Ala Gln Lys
 530 535 540
 Thr Asp Cys Trp Lys Gln Ile Lys Tyr Pro Phe Ala Arg His Gln Ser
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<213> homo sapiens

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35 40 45
Asp Ser Gly Thr Met Thr Ser Lys Asn Tyr Pro Gly Thr Tyr Pro Asn
50 55 60
His Thr Val Cys Glu Lys Thr Ile Thr Val Pro Lys Gly Lys Arg Leu
65 70 75 80
Ile Leu Arg Leu Gly Asp Leu Asp Ile Glu Ser Gln Thr Cys Ala Ser
85 90 95
Asp Tyr Leu Leu Phe Thr Ser Ser Ser Asp Gln Tyr Gly Pro Tyr Cys
100 105 110
Gly Ser Met Thr Val Pro Lys Glu Leu Leu Leu Asn Thr Ser Glu Val
115 120 125
Thr Val Arg Phe Glu Ser Gly Ser His Ile Ser Gly Arg Gly Phe Leu
130 135 140
Leu Thr Tyr Ala Ser Ser Asp His Pro Asp Leu Ile Thr Cys Leu Glu
145 150 155 160
Arg Ala Ser His Tyr Leu Lys Thr Glu Tyr Ser Lys Phe Cys Pro Ala
165 170 175
Gly Cys Arg Asp Val Ala Gly Asp Ile Ser Gly Asn Met Val Asp Gly
180 185 190
Tyr Arg Asp Thr Ser Leu Leu Cys Lys Ala Ala Ile His Ala Gly Ile
195 200 205
Ile Ala Asp Glu Leu Gly Gly Gln Ile Ser Val Leu Gln Arg Lys Gly
210 215 220
Ile Ser Arg Tyr Glu Gly Ile Leu Ala Asn Gly Val Leu Ser Arg Asp
225 230 235 240
Gly Ser Leu Ser Asp Lys Arg Phe Leu Phe Thr Ser Asn Gly Cys Ser
245 250 255
Arg Ser Leu Ser Phe Glu Pro Asp Gly Gln Ile Arg Ala Ser Ser Ser
260 265 270
Trp Gln Ser Val Asn Glu Ser Gly Asp Gln Val His Trp Ser Pro Gly
275 280 285
Gln Ala Arg Leu Gln Asp Gln Gly Pro Ser Trp Ala Ser Gly Asp Ser
290 295 300
Ser Asn Asn His Lys Pro Arg Glu Trp Leu Glu Ile Asp Leu Gly Glu
305 310 315 320
Lys Lys Lys Ile Thr Gly Ile Arg Thr Thr Gly Ser Thr Gln Ser Asn
325 330 335
Phe Asn Phe Tyr Val Lys Ser Phe Val Met Asn Phe Lys Asn Asn Asn
340 345 350
Ser Lys Trp Lys Thr Tyr Lys Gly Ile Val Asn Asn Glu Glu Lys Val
355 360 365
Phe Gln Gly Asn Ser Asn Phe Arg Asp Pro Val Gln Asn Asn Phe Ile
370 375 380
Pro Pro Ile Val Ala Arg Tyr Val Arg Val Val Pro Gln Thr Trp His
385 390 395 400
Gln Arg Ile Ala Leu Lys Val Glu Leu Ile Gly Cys Gln Ile Thr Gln
405 410 415
Gly Asn Asp Ser Leu Val Trp Arg Lys Thr Ser Gln Ser Thr Ser Val

420 425 430
 Ser Thr Lys Lys Glu Asp Glu Thr Ile Thr Arg Pro Ile Pro Ser Glu
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 Glu Thr Ser Thr Gly Ile Asn Ile Thr Thr Val Ala Ile Pro Leu Val
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 465 470 475 480
 Arg Lys Lys Lys Lys Lys Gly Ser Pro Tyr Gly Ser Ala Glu Ala Gln
 485 490 495
 Lys Thr Asp Cys Trp Lys Gln Ile Lys Tyr Pro Phe Ala Arg His Gln
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 <211> 1768
 <212> DNA
 <213> homo sapiens

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